

WHAT I CLAIM AS MY INVENTION:

1. A pump assembly for flowing high-pressure liquid to components of an internal combustion engine having an ECM and a sump; the pump assembly including a high-pressure pump; a pump inlet passage; a pump outlet passage; a hydraulic inlet throttle valve for flowing liquid to the pump through the inlet passage, the inlet throttle valve including a spool moveable between open and closed positions, a spring biasing the spool toward the open position, a hydraulic chamber, the spool including a piston forming a wall of the chamber wherein liquid of the chamber biases the spool toward the closed position against the spring; and a hydraulic circuit including a first flow path extending from the outlet passage to the inlet throttle valve chamber; a second flow path extending from the inlet throttle valve chamber to the sump, and a first fast acting two position on/off control valve located in said first path, such control valve including a valving member having a fully open valve position and a fully closed valve position, a spring biasing the valving member to one of said positions, a solenoid for moving the valving member to the other of said positions when actuated, and a connection between the ECM and the solenoid wherein actuation and deactuation of the solenoid by the ECM rapidly shifts the valving member between said positions without modulating flow through the valve to flow liquid from the outlet

passage to the inlet throttle valve or isolate the inlet throttle valve from the outlet passage.

2. The pump assembly as in claim 1 including a second fast acting two position on/off control valve located in said second path.